## **WE CLAIM:**

1. A compound having the structure of Formula I,

Formula I

and its pharmaceutically acceptable salts, enantiomers, diastereomers, Noxides, prodrugs, metabolities, polymorphs, or pharmaceutically acceptable solvates,

wherein

X is selected from the group consisting of

$$R_1$$
  $R_2$   $R_2$   $R_1$   $R_2$   $R_3$   $R_4$   $R_4$   $R_5$   $R_6$   $R_7$   $R_8$   $R_8$   $R_8$   $R_8$   $R_9$   $R_9$ 

wherein the points of attachment are depicted by hashed bonds, and wherein one point of attachment is bonded to the carbonyl adjacent to the nitrogen and the second point of attachment is bonded to the other carbonyl; W is O,S,SO or SO<sub>2</sub>;

A is –(CH<sub>2</sub>)m- , ——CH<sub>2</sub>CH—CH<sub>2</sub>— , ——CH<sub>2</sub>CH<sub>2</sub>—C— 
$$\mathbb{R}_{11}$$

wherein m is one of the integers 2,3 or 4;

 $R_{11}$  is independently selected from H, F, Cl, Br, I, OH, straight or branched lower ( $C_{1-6}$ ) alkyl, lower ( $C_{1-6}$ ) alkoxy and lower ( $C_{1-6}$ ) perhaloalkyl;

Y is selected from the group consisting of

R<sub>1</sub> and R<sub>2</sub> are independently selected from H, OH, CN, NO<sub>2</sub>, Cl, F, Br, I, OR3, COR3, OCOR3, COOR3, NH2, N(R4, R5) , lower (C1-4)alkyl, lower (C1-4) alkoxy, lower ( $C_{1-4}$ )alkylthio, lower ( $C_{1-4}$ )perhaloalkyl, lower ( $C_{1-4}$ ) perhaloalkoxy, lower ( $C_{1-4}$ )alkoxy substituted with one or more of F, Cl, Br, I, OH, or OR<sub>3</sub>, optionally substituted group selected from aryl, aryloxy, aralalkyl, heterocyclyl or heteroaryl and said substituents being H, F, Cl, Br, I, OH, OR<sub>3</sub>, lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>)alkyl substitued with one or more of F, Cl, Br, I, OH or OR<sub>3</sub>, wherein  $\ensuremath{\mathsf{R}}_3$  is selected from the group consisting of H , straight or branched  $C_1\text{-}$   $C_6$  alkyl and perhaloalkyl;  $R_4$  and  $R_5$  are independently selected from the group consisting of H, CHO, substituted or unsubstituted lower (C<sub>1-4</sub>)alkyl , lower (C<sub>1-4</sub>)alkoxy, COR<sub>3</sub>, COOR<sub>3</sub>, CH<sub>2</sub>CH(OR<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>COOR<sub>3</sub>, CH<sub>2</sub>CHO and (CH<sub>2</sub>)<sub>2</sub>OR<sub>3</sub> wherein R<sub>3</sub> is the same as defined above; R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub> and R<sub>10</sub> are independently selected from H, OH, CN, NO2, Cl, F, Br, I, straight or branched lower (C<sub>1-4</sub>)alkyl optionally substituted with one or more halogens, lower  $(C_{1-4})$ alkoxy optionally substituted with one or more halogens,  $(C_{3-6})$ cycloalkoxy, NH<sub>2</sub>, N-lower(C<sub>1-4</sub>)alkylamino, N, N-di-lower (C<sub>1</sub>-C<sub>4</sub>)alkylamino, N-lower alkyl(C1-C4)amino carbonyl, hydroxy substituted with aromatic or non-aromatic

five or six membered ring, phenyl, phenyl substitued by CI, F, Br, I, NO<sub>2</sub>, NH<sub>2</sub>,  $(C_{1-4})$ alkyl or  $(C_{1-4})$ alkoxy ,  $(C_{1-4})$ perhaloalkyl ,  $(C_{1-4})$ perhaloalkoxy wherein a broken line (....) is a single bond or no bond.

- 2. A compound selected from the group consisting of
  - 1-Carboxy-cyclohex-4-ene-2-[N-{3-(2-ethoxyphenyl)piperazin-1-yl)propyl]carboxamide;
  - 1-Carboxy-cyclohex-4-ene-2-[N-{3-(2-isopropoxyphenyl)piperazin-1-yl}propyl] carboxamide;
  - 1-Carboxy cyclohex-4-ene-2-[N-{3-(2-methoxyphenyl)piperazin-1-yl}-2-hydroxypropyl] carboxamide;
  - 1-Carboxy cyclohex-4-ene-2-[N-{3-(2-hydroxyphenyl)piperazin-1-yl}-2-hydroxypropyl] carboxamide;
  - 1-Carboxy cyclohex-4-ene-2-[N-{3-(2-isopropoxyphenyl)piperazin-1-yl}-2-hydroxy propyl] carboxamide;
  - 1-Carboxy cyclohex-4-ene-2-[N-{3-(2-ethoxyphenyl)piperazin-1yl}-2-hydroxyphenyl] carboxamide;
  - 5-[N-{3-(2-hydroxyphenyl)piperazin-1-yl}]-1-aminopropyl-5-oxo-pentan-1-oic acid;
  - 1-Carboxy cyclohex-4-ene-2-[N-{3-(2-hydroxyphenyl)piperazin-1-yl}propyl] carboxamide;
  - 5-[N-{3-(2-lsopropoxyphenyl)piperazin-1-yl}-1-aminopropyl]-5-oxo-pentan-1-oic acid;
  - Methyl-5-[N-{3-(2-methoxyphenyl)piperazin-1-yl}-1-aminopropyl]-5-oxopentanoate hydrochloride;

1-Carboxymethylcyclohex-4-ene-2-[N-{3-(2-isopropoxyphenyl)piperazin-1-yl}-propyl]carboxamide hydrochloride;

5-[N-{3-(2-Methoxyphenyl)piperazin-1-yl}]-2-hydroxypropylamino-5-oxo-pentan-1-oic acid.

3. A method of selectively antagonizing  $\alpha_1$ -adrenergic receptors in a mammal comprising administering to said mammal a therapeutically effective amount of a compound having the structure of Formula I:

$$X \xrightarrow{OH} A-Y \xrightarrow{R_6} R_7$$

$$R_{10} R_9$$

Formula I

and its pharmaceutically acceptable salts, enantiomers, diastereomers, N-oxides, prodrugs, metabolities, polymorphs, or pharmaceutically acceptable solvates,

## wherein

X is selected from the group consisting of

$$R_1$$
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_3$ 
 $R_4$ 
 $R_4$ 
 $R_5$ 
 $R_6$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 
 $R_9$ 
 $R_9$ 

wherein the points of attachment are depicted by hashed bonds, and

wherein one point of attachment is bonded to the carbonyl adjacent to the nitrogen and the second point of attachment is bonded to the other carbonyl; W is O,S,SO or SO<sub>2</sub>;

A is 
$$-(CH_2)m$$
-,  $--CH_2CH$ - $-CH_2$ -,  $--CH_2CH_2$ - $-C$ -;  $R_{11}$ 

wherein m is one of the integers 2,3 or 4;

 $R_{11}$  is independently selected from H, F, Cl, Br, I, OH, straight or branched lower ( $C_{1-6}$ ) alkyl, lower ( $C_{1-6}$ ) alkoxy and lower ( $C_{1-6}$ ) perhaloalkyl;

Y is selected from the group consisting of

 $R_1$  and  $R_2$  are independently selected from H, OH, CN, NO<sub>2</sub>, Cl, F, Br, I, OR<sub>3</sub>,COR<sub>3</sub>, OCOR<sub>3</sub>, COOR<sub>3</sub>, NH<sub>2</sub>, N(R<sub>4</sub>, R<sub>5</sub>), lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>) alkoxy, lower (C<sub>1-4</sub>)alkylthio, lower (C<sub>1-4</sub>)perhaloalkyl, lower (C<sub>1-4</sub>)perhaloalkoxy, lower (C<sub>1-4</sub>)alkoxy substituted with one or more of F, Cl, Br, I, OH, or OR<sub>3</sub>, optionally substituted group selected from aryl, aryloxy, aralalkyl, heterocyclyl or heteroaryl and said substituents being H, F, Cl, Br, I, OH, OR<sub>3</sub>, lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>)alkyl substituted with one or more of F, Cl, Br, I, OH or OR<sub>3</sub>, wherein R<sub>3</sub> is selected from the group consisting of H, straight or branched C<sub>1</sub>- C<sub>6</sub> alkyl and perhaloalkyl; R<sub>4</sub> and R<sub>5</sub> are independently selected from the group consisting of H, CHO, substituted or unsubstituted lower (C<sub>1-4</sub>)alkyl, lower

 $(C_{1-4})$ alkoxy,  $COR_3$ ,  $COOR_3$ ,  $CH_2CH(OR_3)_2$ ,  $CH_2COOR_3$ ,  $CH_2CHO$  and  $(CH_2)_2OR_3$  wherein  $R_3$  is the same as defined above;  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$  and  $R_{10}$  are independently selected from H, OH, CN, NO<sub>2</sub>, CI, F, Br, I, straight or branched lower  $(C_{1-4})$ alkyl optionally substituted with one or more halogens, lower  $(C_{1-4})$ alkoxy optionally substituted with one or more halogens,  $(C_{3-6})$ cycloalkoxy,  $NH_2$ , N-lower  $(C_{1-4})$ alkylamino, N, N-di-lower  $(C_1$ - $C_4)$ alkylamino, N-lower alkyl $(C_1$ - $C_4)$ amino carbonyl, hydroxy substituted with aromatic or non-aromatic five or six membered ring, phenyl, phenyl substitued by CI, F, Br, I,  $NO_2$ ,  $NH_2$ ,  $(C_{1-4})$ alkyl or  $(C_{1-4})$ alkoxy,  $(C_{1-4})$ perhaloalkyl,  $(C_{1-4})$ perhaloalkoxy wherein a broken line  $(\dots)$  is a single bond or no bond.

4. A method for treating benign prostatic hyperplasia in a mammal comprising administering to said mammal a therapeutically effective amount of a compound having the structure of Formula I:

$$X \xrightarrow{OH} \xrightarrow{R_6} \xrightarrow{R_7} \\ R_{10} \xrightarrow{R_9}$$

Formula I

and its pharmaceutically acceptable salts, enantiomers, diastereomers, Noxides, prodrugs, metabolities, polymorphs, or pharmaceutically acceptable solvates,

wherein

X is selected from the group consisting of

$$R_1$$
  $R_2$   $R_2$   $R_3$   $R_4$   $R_4$   $R_5$   $R_6$   $R_7$   $R_8$   $R_8$ 

wherein the points of attachment are depicted by hashed bonds, and wherein one point of attachment is bonded to the carbonyl adjacent to the nitrogen and the second point of attachment is bonded to the other carbonyl; W is O,S,SO or SO<sub>2</sub>;

A is 
$$-(CH_2)m$$
-,  $--CH_2CH$ - $-CH_2$ -,  $--CH_2CH_2$ - $-C$ - $--CH_2CH_2$ - $-C$ - $--CH_2CH_2$ - $-C$ - $--C$ - $-$ 

wherein m is one of the integers 2,3 or 4;

 $R_{11}$  is independently selected from H, F, Cl, Br, I, OH, straight or branched lower ( $C_{1-6}$ ) alkyl, lower ( $C_{1-6}$ ) alkoxy and lower ( $C_{1-6}$ ) perhaloalkyl;

Y is selected from the group consisting of

R<sub>1</sub> and R<sub>2</sub> are independently selected from H, OH, CN, NO<sub>2</sub>, CI, F, Br, I, OR3, COR3, OCOR3, COOR3, NH2, N(R4, R5) , lower (C1-4)alkyl, lower (C1-4) alkoxy, lower ( $C_{1-4}$ )alkylthio, lower ( $C_{1-4}$ )perhaloalkyl, lower ( $C_{1-4}$ )perhaloalkoxy, lower (C<sub>1-4</sub>)alkoxy substituted with one or more of F, Cl, Br, I, OH, or OR<sub>3</sub>, optionally substituted group selected from aryl, aryloxy, aralalkyl, heterocyclyl or heteroaryl and said substituents being H, F, Cl, Br, I, OH, OR<sub>3</sub>, lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>)alkyl substitued with one or more of F, Cl, Br, I, OH or OR<sub>3</sub>, wherein  $\ensuremath{\mathsf{R}}_3$  is selected from the group consisting of H , straight or branched  $C_1\text{-}$   $C_6$  alkyl and perhaloalkyl; R4 and R5 are independently selected from the group consisting of H, CHO, substituted or unsubstituted lower ( $C_{1-4}$ )alkyl , lower (C<sub>1-4</sub>)alkoxy, COR<sub>3</sub>, COOR<sub>3</sub>, CH<sub>2</sub>CH(OR<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>COOR<sub>3</sub>, CH<sub>2</sub>CHO and (CH<sub>2</sub>)<sub>2</sub>OR<sub>3</sub> wherein R<sub>3</sub> is the same as defined above; R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub> and R<sub>10</sub> are independently selected from H, OH, CN, NO2, Cl, F, Br, I, straight or branched lower (C<sub>1-4</sub>)alkyl optionally substituted with one or more halogens, lower (C<sub>1-</sub> 4) alkoxy optionally substituted with one or more halogens, (C<sub>3-6</sub>) cycloalkoxy, NH<sub>2</sub>, N-lower(C<sub>1-4</sub>)alkylamino, N, N-di-lower (C<sub>1</sub>-C<sub>4</sub>)alkylamino, N-lower alkyl(C<sub>1</sub>-C<sub>4</sub>)amino carbonyl, hydroxy substituted with aromatic or non-aromatic five or six membered ring, phenyl, phenyl substitued by Cl, F, Br, I, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1-4</sub>)alkyl or  $(C_{1\text{--}4})$ alkoxy ,  $(C_{1\text{--}4})$ perhaloalkyl ,  $(C_{1\text{--}4})$ perhaloalkoxy wherein a broken line  $(\dots)$ is a single bond or no bond.

- 5. A pharmaceutical composition comprising a therapeutically effective amount of a compound as defined in claim 1 or 2 and a pharmaceutical acceptable carrier.
- 6. A method of selectively antagonizing  $\alpha_1$ -adrenergic receptors in a mammal comprising the step of administering to said mammal a therapeutically effective amount of the pharmaceutical composition according to claim 5.
- 7. A method for treating benign benign prostatic hyperplasia in a mammal comprising the step of administering to said mammal a therapeutically effective amount of the pharmaceutical composition according to claim 5.

## 8. A process for preparing a compound of Formula I

$$\begin{array}{c|c}
O \\
O \\
O \\
N \\
A \\
O \\
R_{10}
\end{array}$$

$$\begin{array}{c}
R_{7} \\
R_{8} \\
R_{9}
\end{array}$$

Formula i

or its pharmaceutically acceptable salts, enantiomers, diastereomers, N-oxides, prodrgus, metabolities, polymorphs, and pharmaceutically acceptable solvates

wherein

X is selected from the group consisting of

$$R_1$$
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_3$ 
 $R_4$ 
 $R_4$ 
 $R_5$ 
 $R_6$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 

wherein the points of attachment are depicted by hashed bonds, and wherein one point of attachment is bonded to the carbonyl adjacent to the nitrogen and the second point of attachment is bonded to the other carbonyl; W is O, S, SO or SO<sub>2</sub>;

A is 
$$-(CH_2)m^-$$
, .— $CH_2CH$ — $CH_2$ — , — $CH_2CH_2$ — $C$ —

 $R_{11}$ ·

wherein m is one of the integers 2,3 or 4;

 $R_{11}$  is independently selected from H, F, Cl, Br, I, OH, straight or branched lower ( $C_{1-6}$ ) alkyl, lower ( $C_{1-6}$ ) alkoxy and lower ( $C_{1-6}$ ) perhaloalkyl;

Y is selected from the group consisting of

 $R_1$  and  $R_2$  are independently selected from H, OH, CN, NO<sub>2</sub>, CI, F, Br, I, OR<sub>3</sub>, COR<sub>3</sub>, OCOR<sub>3</sub>, COOR<sub>3</sub>, NH<sub>2</sub>, N(R<sub>4</sub>, R<sub>5</sub>), lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>) alkoxy, lower (C<sub>1-4</sub>)alkylthio, lower (C<sub>1-4</sub>)perhaloalkyl, lower (C<sub>1-4</sub>) perhaloalkoxy, lower (C<sub>1-4</sub>)alkoxy substituted with one or more of F, CI, Br, I, OH, or OR<sub>3</sub>, optionally substituted group selected from aryl, aryloxy, aralalkyl, heterocyclyl or heteroaryl and said substituents being H, F, Cl, Br, I, OH, OR<sub>3</sub>, lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>)alkyl substituted with one or more of F, Cl, Br, I, OH or OR<sub>3</sub>, wherein  $R_3$  is selected from the group consisting of H, straight or branched C<sub>1</sub>- C<sub>6</sub> alkyl and perhaloalkyl; R<sub>4</sub> and R<sub>5</sub> are independently selected from the group consisting of H, CHO, substituted or unsubstituted lower (C<sub>1-4</sub>)alkyl, lower (C<sub>1-4</sub>)alkoxy, COR<sub>3</sub>, COOR<sub>3</sub>, CH<sub>2</sub>CH(OR<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>COOR<sub>3</sub>, CH<sub>2</sub>CHO and (CH<sub>2</sub>)<sub>2</sub>OR<sub>3</sub> wherein R<sub>3</sub> is the same as defined above; R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub> and R<sub>10</sub> are independently selected from H, OH, CN, NO<sub>2</sub>, Cl, F, Br, I, straight or branched lower (C<sub>1-4</sub>)alkyl optionally substituted with one or more halogens, lower (C<sub>1-4</sub>)alkoxy, optionally substituted with one or more halogens, (C<sub>3-6</sub>)cycloalkoxy,

$$X \xrightarrow{N-A-Y} \xrightarrow{R_6} \xrightarrow{R_7} R_8$$

Formula II

Formula I

NH<sub>2</sub>, N-lower( $C_{1-4}$ )alkylamino, N, N-di-lower ( $C_1$ - $C_4$ )alkylamino, N-lower alkyl( $C_1$ - $C_4$ )amino carbonyl, hydroxy substituted with aromatic or non-aromatic five or six membered ring, phenyl, phenyl substitued by Cl, F, Br, I, NO<sub>2</sub>, NH<sub>2</sub>, ( $C_{1-4}$ )alkyl or ( $C_{1-4}$ )alkoxy, ( $C_{1-4}$ )perhaloalkyl, ( $C_{1-4}$ )perhaloalkoxy wherein a broken line (....) is a single bond or no bond; which comprises reacting a compound Formula II with a suitable base in a suitable solvent to give the compound of Formula I as shown below:

where all symbols are as defined above.

9. The process of Claim 8 wherein the base is selected from the group consisting of potassium hydroxide and sodium hydroxide.

10. The process of Claim 8 wherein the suitable solvent is selected from the group consisting of water, methanol and ethanol.